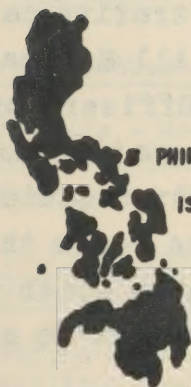


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• OKINAWA

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• PHILIPPINE

ISLANDS

TINIAN • SAIPAN

• GUAM

CIRCULAR NUMBER 8

MEDICAL SECTION

GHQ FEC



1 AUG 1947

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Articles for Publication in Circular

It is desired that the Monthly Circular Letter published by the Medical Section GHQ, FEC be of maximum value to all of the Medical Department personnel in the field. To that end, articles of professional or administrative nature that might be of general interest are needed. All Medical Department officers as well as the Commanding Officers of Medical Department units and the Surgeons of the major commands are solicited for articles of administrative or technical value. Such articles should be forwarded so as to reach the Medical Section, FEC, not later than the 20th of the month preceding the publication of the circular in which it is to appear.

CIRCULAR NUMBER
MEDICAL SECTION
GHQ FEC



GENERAL HEADQUARTERS
FAR EAST COMMAND
MEDICAL SECTION

CIRCULAR LETTER)
: NO. 8)

APO 500
1 August 1947

Part I

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I. Organization of the Medical Section

Arrivals - Medical Section. Captain Vincent I. Hack, PC, formerly of the 406th Medical General Laboratory, Eighth Army, assigned to Plans and Operations Division.

II. Training Policy for Medical Department Officers in Civilian
Institutions at Government Expense

Purpose and General Application - In order to augment the teaching facilities in general hospitals and service schools it is essential that qualified Medical Department officers be assigned to civilian institutions for supplemental training and advanced study. The postwar educational system for the Army is designed to afford as many officers as possible, of sufficiently high scholastic background, the opportunity to pursue advanced studies.

Medical Department officers are eligible to apply to The Surgeon General for study at civilian institutions which are best qualified to meet their individual requirements. Forwarding indorsements should not be perfunctory but will give in full a carefully considered estimate of the applicant's abilities and prospective potentialities for the type of instruction desired. Applicants will be considered individually to the end that selection and assignment is made only of those best qualified for advanced study.

Application Procedure - Requests from individuals for training

in civilian institutions will be submitted through channels so as to reach the SGO, Attention: Education and Training Division, not later than two months prior to the opening date of the course. Each request will set forth the name, inclusive dates, and total cost of the course together with the completed application blank and such other information as may be required by the school concerned, (i.e. transcript of academic record). The certificate required by War Department Circular 267, 1946, will be forwarded as an inclosure in each case. In no instance, where courses are to be taken at the expense of the Government and not of the individual, will applications be submitted directly to the civilian institution concerned. This office will make necessary arrangements for admission including contractual arrangements for pay of tuition and laboratory fees.

Text books and Supplies - Textbooks, supplies and/or instruments are not provided under the terms of the contract which covers tuition and laboratory fees only. Assistance in procurement of textbooks may be arranged through The Surgeon General when courses of more than two months full time are approved. In certain courses, such as dental, where required instruments and supplies are not furnished by the school, a complete itemized list should be forwarded to The Surgeon General, as a separate inclosure with the application. Upon approval of the request for training, steps will be taken by The Surgeon General to furnish the required items.

Officers in Residency Training - For officers in residency training courses at civilian institutions will be restricted to those officers who have completed formal training requirements except as provided in paragraph below:

Except for those officers enrolled in basic science courses or courses established as an integral part of residency training by the local hospital commander and approved by The Surgeon General, courses of instruction in civilian institutions will be approved only when scheduled during the holiday periods set forth in paragraph 6d, SGO Circular #87, 21 November 1946. However, to meet special needs, courses may be arranged for periods of not more than five consecutive days to be taken by the resident on a leave status or in lieu of this amount of leave.

Evaluation Report on Civilian Institution Courses - On completion of a course at a civilian institution each officer concerned will render an evaluation report to The Surgeon General, ATTN: Chief, Education and Training Division. The report will include name of institution, course, length, date completed, remarks as to the value of the course (i.e., too elementary or too advanced, etc.), and remarks as to the value of the course in general.

Officers who have completed a course of instruction at a civilian institution prior to publication of this circular and who have not submitted the report called for above will comply at the earliest practicable date.

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The two paragraphs above supersede paragraph 3d, Section I, SGO Circular 17, 22 May 1946.

MEDCT (6 March 1947)

III. Non-Volunteer MC, VC, and SC Officers on Twenty-four Month Basis

The War Department announced in radiogram WCL 25599 dated 15 June 1947 that, effective 1 July 1947, all non-volunteer Medical Corps officers, regardless of specialty or A, B, or C Classification within the specialty, would become eligible for relief from active duty upon completion of two years service. In addition, the required period of service for non-volunteer Veterinary Corps and Sanitary Corps officers was reduced from thirty-two months to two years putting this group on the same basis with other officers.

IV. Japanese B Encephalitis Commission

A Virus and Rickettsial Disease Commission consisting of Dr. William McD Hammon, University of California, Dr. Gordon Meikeljohn, University of California, Dr. Jorge Casals, Rockefeller Foundation, and Dr. Don M. Reese, University of Utah has arrived in Japan for the purpose of investigating and studying Japanese B Encephalitis. The members of this commission have special training and experience in encephalitis and other infectious diseases of the central nervous system. They will be present in the theater during the summer months to make studies and offer suggestions on treatment and control of Japanese B Encephalitis.

V. Reprints of "The Army Medical Library"

Information has been received in this office that a limited number of reprints of Mr. Richard Hood's "The Army Medical Library", published in "Science", 25 April 1947, are available. Requests should be addressed to the Commandant, Army Medical Library, Washington 25, D. C.

VI. Medical Department Training Films

Training films and film strips are a necessary adjunct in the fulfillment of a well rounded Medical Department Training program. With the present shortage of trained, experienced, Medical Department Personnel, the use of training films as a medium for accomplishing the standards of achievement desired in the training of all Medical Department personnel has become increasingly important.

With this end in view the following information has been compiled:

- a. Commands that are currently publishing catalogs or

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lists, including Medical Department films, and at what intervals such catalogs or lists are published.

b. Names of all film libraries and sub-libraries, the location and area served.

c. Method of obtaining films from the library and length of time they may be maintained by using organizations.

Eighth Army - A training film catalog is published as needed by Central Film & Equipment Exchange, Headquarters, Eighth Army, APO 343. There are no catalogs published by the subordinate commands of Eighth Army.

Sub-libraries of the Central Film and Equipment Exchange are located in Kobe, Kyoto, Osaka, Kokua, Camp Drake, Sendai, and Sapporo, and serve units in their adjacent territory. Air force units secure their training films from the JAMA Central Film and Equipment Exchange operated at Tachikawa independently of the Central Film and Equipment Exchange.

Couriers may call at the Central Exchange for units located in the Yokohama-Tokyo area to secure most films for any reasonable length of time and without formal request. For units to inconveniently located to call for films by couriers, a training film request form has been made available and upon receipt of this form prepared in triplicate, all films available will be mailed immediately to the requesting unit. Critical films, because of low supply, great demand, and time taken for transit will not be sent on mail orders.

MARBO - A list of training films and film strips is published by the Marianas Bonins Command, APO 246, with supplemental and unavailable listings published and distributed every ninety days.

Areas served are Saipan, Tinian, Iwo Jima, and Manus, as well as units on Guam.

Guam units should requisition film on property issue slips, direct to The Film Exchange whereas units on the other islands of the command may request films by radio through Signal Section MARBO. Training units are supplied directly on request to the MARBO film exchange.

Time limits for retention of films by units on Guam is three days, and for units on the other islands in the command it is ten days, unless there is a special request for a longer period.

PHILRYCOM - A list of film available to the Philippines-Ryukyus Command, APO 707, is published approximately once every three months.

Film exchanges available for film distribution in the Philippines-

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Ryukyus Command are as follows:

Central Film & Equipment Exchange - Manila
1st Film & Equipment Exchange - Base "M" Sn Fernando,
La Union
2nd Film & Equipment Exchange - Base "R" Batangas
Phil Comb Hq Trng Film Exchange - Camp O'Donnell, Capas,
Tarlac
Base "K" Film & Equipment Exchange - Leyte
RYCOM Film & Equipment Exchange - Okinawa

Training films and film strips may be procured by all troops and detachments in the geographical area by submitting requisitions to their adjacent film exchange.

XXIV Corps - A training film catalog is published every three months by XXIV Corps Film Exchange, APO 235.

Film libraries are located at 6th Infantry Division, 7th Infantry Division, and XXIV Corps with the libraries serving the areas under control of their major commands.

Films are requested informally in writing and are issued on hand receipt. 7th Infantry Division and Korea Base Command are allowed to keep films for a period of from five to seven days. Due to transportation difficulties films may be retained by 6th Infantry Division for three weeks.

VII. Army Microfilm Exhibit at Pediatric Congress

Newest examples of microfilm duplication of the nation's greatest collection of medical literature were on display at the Fifth International Congress of Pediatrics meeting at the Hotel Waldorf Astoria, July 14-17.

The feature exhibit was sponsored by the Photoduplication Division of the Army Medical Library, branch of the Office of the Surgeon General, U. S. Army.

A treasure chest of medical information, going back in some cases to medieval times, the Army Medical Library in Washington now has a collection of more than 1,000,000 volumes that have been gathered, catalogued and indexed since 1836 when Surgeon General Joseph Lovell began the work during the administration of President Andrew Jackson.

Through the microfilm service of the Army Medical Library, physicians, libraries and professional workers almost anywhere in the world may obtain facsimile replicas of this great bulk of existing medical literature on 35 millimeter film, according to Colonel J. H. McNinch, Commandant of the Army Medical Library.

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Any page of a medical journal, book or manuscript is photographed with high-speed cameras in the microfilm process. The physician or researcher requesting the material receives the film reproduction reduced to the size of a large postage stamp for each page. These pages can be read either in small-size film viewers which enlarge the tiny microfilm, or they can be projected to large, readable size in special machines now available in many libraries and research centers. A whole book on microfilm takes only as much space as the corner of a coat pocket.

During the year 1946, explains the Army Medical Library exhibit at the Fifth International Congress on Pediatrics, over 6,000,000 pages of medical literature were distributed on 551,102 feet of microfilm. If one attended a two hour movie each night in the week for six weeks, one could not view as much film as the photoduplication service of the Army Medical Library distributed on a world-wide basis last year.

From a doctor in the Belgian Congo came an urgent request for a complete bibliography on the nutritional merits of soy beans, peanuts, and cottenseed. From France came a request for medical reports on injuries in parachute jumps. Two sources in South Africa sought medical information available only in Japanese medical literature. In addition, thousands of physicians and other professional workers in the United States sought complete facsimile bibliographies on hundreds of specific medical subjects.

Costs are moderate for the microfilm duplicating service that brings the world's medical literature into the office of any physician however remote. Articles in medical periodicals are duplicated on microfilm for fifty cents each. Books are duplicated for fifty cents for each fifty pages or fraction thereof. Photostats are priced at fifty cents for each ten pages or fraction thereof for any single volume. There are certain restrictions on photoduplication to protect the rights of copyright owners.

VIII. Recent War Department and FEC Publications

AR 40-310, C-1, 25 June 1947, Collection and Shipment of Specimens to Laboratories.

AR 615-361, 14 May 1947, Enlisted Personnel, "Discharge, Medical".

Circular 120, War Department, 1947, Field Ration.

Circular 133, War Department, 3 June 1947, Section II, Field Ration - (Circular 120, War Department 1947, corrected).

Circular 153, War Department, 13 June 1947, Military Occupational Spec. Classification of Enlisted Men.

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Circular 155, War Department, 14 June 1947, Section II, "Army-Navy Medical Procurement Office", (Address changed) and Section III En-listed Men and Army Aviation Cadets (pertaining to Emergency Maternity and Infant care Program).

Circular 159, War Department, 18 June 1947, Section V, Hospital Funds, (Rescinds Section III, Circular 289, War Department, 1945, and Section I, 71, 1947).

Circular 161, War Department, 19 June 1947, Section V - Monthly Report of Insect and Rodent Control Activities - Reports Control Symbol ENG-11-Section II, Circular 14, War Department 1947, amended.

Circular 164, War Department, 21 June 1947, Section V, General Prisoners, (Pertaining to Preparation of Med. Records, etc.).

Circular 167, War Department, 26 June 1947, Section III, Move-ments of Dependent's and Authorized baggage (pertains to Military Per-sonnel who are hospitalized).

Memo 305-15-10, C-2, War Department, 6 June 1947, "List of Re-curring Reports Authorized for Preparation".

Memo 600-900-2, War Department, 12 June 1947, supersedes Memo 600-900-2, War Department, 13 May 1947, and changes reports control symbol.

Memo 40-5-2, War Department, 25 June 1947, Subject: Medical. Service Relationship Between Oversea Commands and ATC Wings Operating Therein.

Memo 40-1005-3, War Department, 25 June 1947, Disposition of Electroencephalographic Tracings.

Memo 40-520-1, War Department, 26 June 1947, Dental Laboratory Service.

Circular 77, GHQ, FEC, 9 July 1947, Section II, Payment for Blood Donations.

Part II

<u>SUBJECT</u>	<u>TECHNICAL</u>	<u>SECTION</u>
Doctor-Patient Relationship		IX
Diphtheria		X
Comments on Orthodontia		XI
Ring Test for Brucella Abortus		XII

IX. Doctor-Patient Relationship by Lt. Colonel Warner F. Bowers, MC, Surgical Consultant, Far East Command

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Patient's complaints, while infrequent, always are a matter of deep concern to higher authority and although their investigation usually reveals that the complaint results from the patient's incomplete understanding of the situation, certain generally prevalent defects in the doctor-patient relationship are readily apparent. These deficiencies stem from the fact that most medical officers now dealing with patients are very inexperienced in talking to and in front of patients. Furthermore, they have not had the opportunity to observe the methods of older and more polished doctors in handling patients. Lastly, school emphasis is largely on the laboratory approach to cases rather than on the intelligent management of sick people. This whole subject is so vital to the future success of young doctors and so affects the public opinion of the medical corps that special attention is paid to it on all inspection trips and teaching ward rounds. Talks on the subject are given but actual demonstration on rounds is the most effective. The following generalizations indicate the types of defects recently noted and the advocated methods of improvement.

The usual complaint is that the patient did not see a doctor for five or some other specified number of days. Allowing for the fact that the ward officer may be operating or elsewhere busy at times, this complaint routinely is an exaggeration based on the fact that the doctor does not know how to make the patient feel that he has been "seen". This is best overcome by two simple procedures. First, the doctor should introduce himself to each new patient with some such definite statement as, "I'm Capt. Brown and I'm the doctor in charge of your case." Then, on each succeeding day sufficient time should be spent, enough questions asked at the bedside and some manual examination made so that the patient realizes that his doctor has seen him.

The next most frequent complaint is that nothing has been done for the patient. Patients expect treatment and feel neglected if conservative management is not explained to them. This explanation should frankly state that time and bed rest are the main elements of treatment and that little else will be needed in order to assure satisfactory recovery. This simple explanation saves many later complaints.

Patients frequently state or write their relatives that the doctor showed no interest in them. Most doctors fail to realize that what they regard as a drab and uninteresting case is of great importance to the patient who is being hospitalized, possibly for the first time. Getting acquainted with the patient, simple explanation of the case, brief discussion of the treatment and reassurance as to end results take but a few minutes but are of inestimable value. Doctors often destroy their patient's good will on rounds by saying, "There is nothing interesting about this patient." The routine answer to this thoughtless remark is "All patients are interesting, but some cases are more serious than others."

Another source of trouble is the doctor's frequent comment

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on rounds to the effect that all examinations are negative and he can't find anything wrong with the patient. This immediately puts the patient on the defensive, arouses his hostility and makes him feel that we are pointing an accusing finger at him. Such a bald statement, is usually counteracted by the remark that diagnosis is sometimes difficult, x-rays do not always show the trouble and that the true nature of the difficulty will doubtless become apparent on further study of the case by the ward doctor with consultation.

The final two sources of trouble that remain to be discussed arise from the doctor's fear that the patient will discover the limitations of his knowledge and the doctor's anxiety to have the patient realize his superiority to other doctors. The first leads the doctor to make promises on which he can't deliver and particularly does he promise what will be done elsewhere. Recently a child was sent overseas, having been refused plastic surgery in a Zone of Interior general hospital with the statement that all the good plastic surgeons were overseas and that the case would be handled here. This same mental mechanism is behind the frequent statement to patients that supplies and equipment are too poor to permit handling the case here. Thus the doctor avoids admitting that he is not a specialist in that particular field.

The second attitude causes the doctor to complain about treatment given elsewhere. The station hospital doctor criticizes the dispensary doctor and the general hospital doctor casts aspersions at the station hospital doctor, always in front of the patient. These remarks do not have the desired affect of building the prestige of the speaker but simply tend to discredit the medical corps. Similarly, two recent instances have been seen where chiefs of service severely censure their ward officers in the patient's presence. Such chiefs, insecure in their knowledge, unconsciously try to bolster their positions by belittling their associates. Instead of strengthening their position, such tactics simply create friction and lack of respect.

Frank discussion of the above deficiencies in handling patients properly is the best means of improving doctor-patient relationship and as a corollary complaints by patients become less frequent.

X. Diphtheria

The following is an article prepared by Walter L. Barksdale, WDC, and Lt. Colonel W. D. Tigertt, MC, 406th Medical General Laboratory, on the above subject.

Experience gained during the past twenty-one months has shown that the diagnosis of diphtheria as it occurs in American troops in Japan is subject to wide variations. The diagnosis is frequently not considered until a severe or fatal case is encountered and following this the disease is over-diagnosed and over-reported. This discussion purposes to point out certain of the reasons for these discrepancies.

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Failure to recognize the disease when it occurs is due to:

a. The nasopharyngeal picture evidenced by American adults in Japan is very variable and only seldom approaches the picture described in most textbooks as typical. The nasopharynx may show only focal, red, edematous areas (which are sometimes confused with peritonsillar abscesses) or a spotty, adherent, scattered granular exudate, or a confluent tenacious membrane. It must be emphasized that this is not a cycle of development in a single case but merely represents the various types of pictures that may be seen. It is difficult to correlate the severity of systemic symptoms with the appearance of the nasopharyngeal lesion but the impression has been gained that the more severe systemic symptoms are associated frequently with poor membrane formation in the throat. That this case represents true diphtheria has been proved by regression of the clinical symptoms following antitoxin therapy, by the development of scattered paralyses, by the development of electrocardiographic evidence of cardiac damage and by the death of several such cases. It is to be emphasized that many of the adults will enter the hospital with very mild systemic symptoms.

b. The cutaneous lesions of diphtheria are often confused with other types of indolent ulcerated lesions. These lesions are frequently engrafted on preexisting ulcers or surgical wounds. For a full discussion reference should be made to TB MED 143 with Change 1 thereto. It is sufficient here to state that any rounded, deep, "punched out" skin lesion covered by a membrane should be considered as possibly representing cutaneous diphtheria. This lesion slowly heals from the periphery toward the center. It is important to emphasize that early treatment is essential. TB MED 143 required that if such lesions are encountered the administration of diphtheria antitoxin should be instituted on the basis of clinical diagnosis without waiting for laboratory confirmation. This is not a seasonal disease. The incidence of systemic symptoms following cutaneous diphtheria is in the neighborhood of twenty percent in all cases.

c. Laboratory Diagnosis - The several methods utilized in the laboratory diagnosis of diphtheria require trained personnel and are directly dependent upon the submission of correctly secured representative samples of material from the apparently involved areas. This material should be obtained under direct vision by the Ward Officer. In all instances if any type of membrane is present the material most suitable for diagnosis is obtained from beneath the membrane. This is a task which too frequently is left for inexperienced personnel to perform.

d. Examination of the Direct Smear - Frequently the organisms observed do not conform to the textbook descriptions. They may appear as pleomorphic rods, showing rounded, pointed, or swollen ends. A descriptive term sometimes used to describe a frequent appearance is "double suppository". The organisms may occur both intra and extra cellularly. When intracellular they are usually Gram negative and

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when extracellular the individual organisms are wholly or in part Gram positive. The accompanying photographs, reproduced from "The Journal of Military Medicine in the Pacific", Volume I, No. 3, November 1945, show the various appearances the organisms may assume.

e. Cultural Characteristics - Of the several types of C. diphtheriae producing lesions only gravis gives a typical picture when cultured in the usual manner. Variations and methods will not be discussed since skill in recognition of the colonies can be obtained only through actual experience with a laboratory worker familiar with the wide variations which may be encountered. It is estimated that a minimum of fifty percent positive cultures are not recognized in the average laboratory.

f. Virulence test - Concepts regarding "virulence" are in a state of change. It is ordinarily considered that most of the organisms producing symptoms in humans will produce typical lesions when inoculated into guinea pigs and that these lesions can be prevented by administration of a suitable amount of antitoxin. All isolates of suspected C. diphtheriae should be tested to determine whether or not they are actually virulent. This is a time-consuming procedure and should be attempted only in large laboratories.

In contrast to the preceding portion of the discussion physicians are frequently in the position of over-diagnosing diphtheria. Factors causing this occurrence are:

a. Precepts of good clinical medicine require that a diagnosis be made on the basis of clinical symptoms and that treatment be instituted without necessarily obtaining laboratory confirmation. It, therefore, frequently obtains that when one or more serious cases have been encountered that the index of clinical suspicion is raised to a point where all possible cases are treated. It is to be emphasized that while this may represent good clinical practice that it also results in a marked increase in the number of diphtheria cases reported from a single area, with the result that epidemiological figures are not valid.

b. The inexperienced clinical laboratory worker who is placed in the position of reporting the presence or absence of diphtheria organisms, particularly in the presence of a situation comparable to that outlined in the preceding paragraph, will frequently report various other organisms as representing C. diphtheriae. The most common mistake is to mis-diagnose streptococci and Vincent's organisms.

In summary, the diagnosis of diphtheria in American adults in Japan requires a high index of suspicion, an appreciation that the disease may be variable, close cooperation between the clinician and the clinical pathologist, and finally, ability to appreciate that one or two severe cases occurring in an area not infrequently lead to an increase in the number of cases reported without this necessarily representing a true epidemic.



Fig. 1. Case Y56. Exudate from diphtheritic ulcer. Many of the pleomorphic, toxigenic, bacilli are intracellular. (X1100)



Fig. 2. Case Y56. Exudate from another ulcer. Note "double suppository" forms of *C. diphtheriae* sometimes observed in direct smears of exudates (X1100).



Fig. 3. Case Y57. Exudate from diphtheritic ulcer. *C. diphtheriae* within the leucocytes. . (X500).



Fig. 4. Case Y57. Exudate from diphtheritic ulcer. Intracellular position of pleomorphic Gram positive bacilli. (X1100).

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XI. Comments on Orthodontia

The following is extracted from the Medical Bulletin, Office of the Theater Chief Surgeon, European Theater, for January 1947. The article is by Colonel Neal A. Harper, DC.

Many inquiries have been made by or on behalf of dependents, and a few by young soldiers, as to orthodontic treatment of dental malocclusion. The subject is of sufficient significance to warrant remark.

Irregular dental arches and malposed teeth are not uncommon. Such conditions result from inherited predisposition, illness, oral habits or injuries. Children often present these irregularities as family characteristics; twins frequently exhibit identical deviations from normal arches. Malnutrition, tuberculosis, adenoid tissue and other factors which impair or distort development account for many cases. Habits such as thumb or finger-sucking, postures in sleeping, particularly that of resting the jaw on the fist, contribute substantially to the incidence of malocclusion. Traumatic displacement of teeth, improperly reduced fractures of the jaws, and damage done to teeth or tooth buds by operation for the closure of cleft palate likewise produce a considerable number of problems in irregularity of the dental structures.

To treat or not to treat cases of malocclusion is a decision requiring consideration of many conditions and circumstances. Very important among these are the degree of the irregularity, the age and health of the prospective patient, the availability of orthodontists and the special equipment and materials necessary to orthodontic procedures, the time estimated as essential to the completion of the case, and the cooperation between operator, recipient of treatment and parents, and/or the commanding officer.

Malocclusion of small extent may indicate a "let well enough alone" policy. In such cases the time, effort and possible complications usually establish the premise that the end would not justify the means. Those conditions involving incisal and masticating functions, improvement of marked esthetic defects and the promotion of oral health ordinarily rate first call for treatment.

Age is a matter of major interest. In the care of several hundred cases of malocclusion, the writer's experience established that the best results were obtained where treatment was begun between the ages of 10 and 14 years. At that period most of the permanent teeth have erupted and accurate predetermination of the arches is not difficult. This does not mean, however, that orthodontic treatment is contraindicated at other ages. Cases begun at 4 years of age have done well, these being of children whose problem was essentially that of stimulating physiological development of jaws retarded by ill

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health or injury. Results have proved the value of treating cases up to the mid-twenties, although progress is usually slower as the bones and arches reach maturity.

Orthodontic treatment should be undertaken only by those dental officers whose background and training have included special courses of graduate study and clinical experience. It is a specialized field in the same sense that cardiology, neurosurgery and orthopedics are specialities in medical practice. More harm than good may result from unskilled efforts. Too much pressure applied to the teeth may destroy the pulps or extrude the roots from their sockets. On the other hand ultra conservative treatment may require years to achieve objectives attainable in months.

Equipment and supplies used in the treatment of malocclusion are designed specifically for that purpose and are not standard items for issue. The construction and maintenance of regulating and retaining appliances cannot be accomplished without a number of such elements.

The time required for orthodontic care is relatively long. The active movement phase may take from six months or two or more years. Frequent sittings must be scheduled throughout this period for the regulation and repair of appliances, continuance of oral hygiene and observation of progress. When the correction of arch and tooth alignment has been completed the case enters its passive stage, retention. Many experienced orthodontists employ retaining devices for the same length of time as that used in active treatment. The interval between sittings is usually substantially longer during passive treatment.

Cooperation between orthodontist, patient, parents and/or commanding officer is vitally important. Broken appointments, faulty hygiene, the use of chewing gum or "sticky" candy, indulgence in rough sports and attempts at "self regulation" jeopardize or defeat the success of the case. Interruption of treatment through transfer would obviously mitigate seriously against satisfactory results.

These remarks are intended to present some of the aspects of orthodontic service as the writer has viewed them in the course of practicing that specialty of dentistry for a number of years.

* * * * *

XII. "Ring" Test for Brucella Abortus

The following article by Major Robert L. Jimison, VC, was taken from the "Medical Bulletin", Office of the Theater Chief Surgeon, European Theater, Volume 2, #3, for March 1947.

The Danish veterinary profession is doing a great deal of work in connection with the eradication of Bang's disease in the cattle of Denmark. Danish veterinarians hope eventually to rid their country

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of this disease and, in so doing, to reduce the menace to human health that undulant fever represents.

In pursuing this goal, the Danes are using the "ring" test on samples of milk from every dairy herd. This test is simply and quickly conducted, has great accuracy and detects the presence of *Brucella abortus* in milk from a large herd even though only one cow is affected. Thus, by taking samples at the dairy plant from each can (40 liters) of every producers milk, the veterinarians are able quickly to ascertain those herds which are infected. Then, by visiting these farms and employing both the "ring" test and the blood test to individual cows, it is a simple matter to determine the number of cattle involved, and the severity of the infection. By a combination of these two tests it may be possible to locate and eventually rid Denmark of its infected cattle. Present results indicate that from 12 to 14 percent of herds are infected.

This "ring" test was developed in Munich in 1937 by Fleischauer and Hermann. It consists of adding one drop of a prepared antigen (preparation described below) to one cubic centimeter of whole milk in a small test tube. This tube is incubated for one hour at 37 degrees centigrade. A positive result is shown by the appearance of a purple ring around the top of the milk in the tube. A negative sample remains colorless.

Preparation of the antigen to be used in the "ring" test is as follows:

(A.) DYE. Dissolve 4 grams of hematoxylin in 25 cc of 96 per cent absolute ethyl alcohol. To this add 400 cc of saturated (10 per cent) ammonium aluminum sulfate ($\text{NH}_3\text{Al SO}_4$) solution. Place this mixture in a plain glass bottle and leave uncorked and exposed to daylight for three to four days. Then filter. To this solution add 100 cc of glycerine and 100 cc of methyl alcohol. Now allow this mixture to age for from ten to fourteen days at room temperature. After this period dilute one part to three parts of saturated ammonium aluminum sulfate solution.

(B.) ANTIGEN. Collect an agar culture of *Brucella abortus* in a Roux re-tort by washing the culture with 0.9 per cent sodium chloride solution. Separate the bacteria from solution by centrifuging in a weighed centrifuge glass. After centrifuging wash sediment several times with fresh 0.9 per cent sodium chloride solution. Then mix the washed sediment with a surplus amount of the dye, prepared as above, and place the mixture in a refrigerator for two days. After this period centrifuge again and wash the sediment with distilled water until no stain (dye) is given off in the water. Now remove water and weigh the dyed bacteria. After weighing remove from the centrifuge glass and macerate evenly with five times their weight of glycerine containing 0.5 per cent phenol. (Add the glycerin little by little during maceration).

This resulting mixture is now ready for use as antigen in the "ring" test. It should be stored in a bottle equipped with a dropper and kept under refrigeration.

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The Danish veterinarian has a distinct advantage over his colleague in the United States in his efforts to rid his country of Bang's disease. Here the entire dairying industry from farm to dairy plant and exporter is highly organized into cooperatives. Therefore, full integration of any such work is assured throughout Denmark. The veterinarian is assured that every farmer and every dairyman in the country will cooperate fully. Further, since the dairy industry is the backbone of the Danish economy, all concerned are well aware of the vast economic threat this disease represents to them individually. It is felt that this test should and eventually will be widely used in the United States in conjunction with the present blood testing and calf vaccination programs.

Part III

STATISTICAL

XIII. Evacuation

During the period 31 May to 27 June 1947, the following patients were evacuated from the several major commands:

	<u>Air</u>	<u>Water</u>	<u>Total</u>
JAPAN	168	361	529
*KOREA	157	101	258
PHILRYCOM	60	9	69
MARBO	50	0	50

The following are the evacuations per thousand strength for the period 31 May to 27 June 1947:

JAPAN	4.3
KOREA	5.2
PHILRYCOM	1.2
MARBO	2.3
THEATER	3.5

As of 27 June 1947, the following number of patients were awaiting evacuation:

JAPAN	350
KOREA	6
PHILRYCOM	22
MARBO	16

* Patients are evacuated to Japan from Korea for onward evacuation.

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XIV. Hospitalization:

The Bed Status Report as of 27 June 1947 was as follows:

	<u>Total T/O</u> <u>Beds Present</u>	<u>Total T/O</u> <u>Beds Established</u>	<u>Total T/O</u> <u>Beds Occupied</u>
JAPAN	4,450	4,450	2,786
KOREA	2,050	1,443	841
PHILRYCOM	2,350	2,063	1,575
MARBO	575	575	359
 THEATER:	 9,425	 8,707	 6,150

The per cent of T/O beds and operating beds occupied for the period ending 27 June are as follows:

	<u>Per cent T/O</u> <u>Beds Occupied</u>	<u>Per cent Operating</u> <u>Beds Occupied</u>
JAPAN	62	62
KOREA	42	58
PHILRYCOM	67	76
MARBO	62	62
THEATER	59	65

Tables showing various admission rates are listed below:

ADMISSION RATES PER 1,000 PER ANNUM:

All Causes

<u>Week Ending</u>	<u>Theater</u>	<u>JAPAN</u>	<u>KOREA</u>	<u>PHILRYCOM</u>	<u>MARBO</u>
6 June 1947	636	706	669	579	302
13 June 1947	631	686	683	560	376
20 June 1947	622	665	731	530	347
27 June 1947	634	705	709	519	341

Disease

6 June 1947	568	642	606	499	240
13 June 1947	565	610	609	512	336
20 June 1947	555	593	663	479	275
27 June 1947	571	641	646	466	263

Injury

6 June 1947	67	64	63	80	62
13 June 1947	66	75	74	48	40
20 June 1947	67	72	68	51	72
27 June 1947	62	64	63	54	77

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ADMISSION RATES PER 1,000 PER ANNUM: (cont'd)

Psychiatric

<u>Week Ending</u>	<u>THEATER</u>	<u>JAPAN</u>	<u>KOREA</u>	<u>PHILIPPINES</u>	<u>MARBO</u>
6 June 1947	11	8.6	15	15	10
13 June 1947	16	18	14	15	17
20 June 1947	9	12	6	5	13
27 June 1947	14	22	9	8	5

Organic Neurological Disease

6 June 1947	0	0	0	0	0
13 June 1947	0	0	0	0	0
20 June 1947	0	0	0	0	0
27 June 1947	.8	.8	0	1.8	0

Common Respiratory Disease

6 June 1947	92	119	98	59	22
13 June 1947	95	102	145	64	20
20 June 1947	104	99	151	61	26
27 June 1947	87	95	126	58	27

Influenza

6 June 1947	2	2	5	0	0
13 June 1947	6	1.6	5	20	0
20 June 1947	.8	1.2	1	0	0
27 June 1947	.8	.8	2	0	0

Primary Atypical Pneumonia

6 June 1947	4	5.4	5	1.6	2.5
13 June 1947	6	5.7	7	7.7	5
20 June 1947	6	7.9	7	2.7	5
27 June 1947	3.7	4.7	4	1.8	2

Common Diarrhea

6 June 1947	6	2	15	12	0
13 June 1947	9	4.5	16	17	0
20 June 1947	9	4.5	21	10	2.6
23 June 1947	9	3.4	21	17	0

Bacillary Dysentery

6 June 1947	.6	0	0	2.5	0
13 June 1947	.6	0	1	1.7	0
20 June 1947	.6	.8	0	.9	0
27 June 1947	.2	.4	0	0	0

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ADMISSION RATES PER 1,000 PER ANNUM (Cont'd)

Amebic Dysentery

<u>Week Ending</u>	<u>THEATER</u>	<u>JAPAN</u>	<u>KOREA</u>	<u>PHILLYCOM</u>	<u>MARBO</u>
6 June 1947	3.2	2	0	11	0
13 June 1947	1	0	0	4	0
20 June 1947	2.4	1.6	1	6.4	0
27 June 1947	1.8	1.6	1	3.7	0

Malaria

6 June 1947	11	.4	5	37	15
13 June 1947	13	.4	9	38	30
20 June 1947	13	.4	4	52	13
27 June 1947	12	2.5	5	40	14

Infectious Hepatitis

6 June 1947	3	1.6	3	6	5
13 June 1947	4	2.8	7	3	7
20 June 1947	3	2	5	4	0
27 June 1947	2	2.5	0	1.8	5

Mycotic Dermatoses

6 June 1947	3	3.3	3	2.5	7.5
13 June 1947	4	6	0	4	0
20 June 1947	6	4	12	6	5
27 June 1947	6	6	9	5	5

Venereal Disease

6 June 1947	82	92	98	74	10
13 June 1947	82	95	62	93	15
20 June 1947	87	93	95	98	2.6
27 June 1947	87	98	94	90	7

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